

# Work Order ID 105235

Wednesday, September 04, 2013 1:03:02 PM

**\*105235\***

Page 1

Item ID: D412-761-111 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Wiring Harness Required 412  
 Start Date: 7/29/2013 Start Qty: 2.00 **\*2\*** Cust Item ID:  
 Required Date: 8/13/2013 Req'd Qty: 2.00 **\*2\*** Customer:

## Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D412-761-111	B

100 0.00  
**\*100\***  
 DC Memo 0.00  
 Document Control Photocopy bluefile and create labels as per PPP D412-761-111 chg 001

**DAS**  
**42 SEP 04 2013**

105 0.00  
**\*105\***  
 Purchasing Memo 0.00  
 Purchasing ISSUE P/O: 20726  
 POSSIBLE SUPPLIER: EAGLE  
 C OF C REQUIRED

**DAS**  
**42 SEP 04 2013**

110 0.00  
**\*110\***  
 Packaging Memo 0.00  
 Packaging

**DAS**  
**42 SEP 04 2013**

1974-1975

1974-1975

1974-1975

**Work Order ID 105235****\*105235\***

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Wednesday, September 04, 2013 1:03:02 PM

Item ID: D412-761-111

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Wiring Harness Required 412

Start Date: 7/29/2013 Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 8/13/2013 Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120 QC5- Inspect part completeness to step on W/O

0.00

**\*120\***

QC

Memo

0.00

Quality Control

DAS  
SEP 04 2013

130 0.00

**\*130\***

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D412-761-111

Location: \_\_\_\_\_

PPP Rev: \_\_\_\_\_

DAS  
SEP 04 2013

140 QC21- Final Inspection - Work Order Release

0.00

**\*140\***

QC

Memo

0.00

Quality Control

25. 0. 0. 0. 0.

26. 0. 0. 0. 0.

# Picklist Print

Wednesday, September 04, 2013 1:03:21 P

Page 1

Work Order ID: 105235

Parent Item: D412-761-111

Parent Item Name: Wiring Harness Required 412

Start Date: 7/29/2013

Required Date: 8/13/2013

Start Qty: 2.00

Required Qty: 2.00

Comments: UIPP REV:A NEW ISSUE 13-01-02 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D412-761-111P Wiring Harness		Purchased	No				Each	0.0000		2		SEP 04 2013	

42  
9-23

40

55.4 500

Work Order ID 105235

July-29-13 2:19:42 PM

ship 26/08!

\*105235\*

Page 1

Item ID: D412-761-111

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Wiring Harness Required 412

Start Date: 7/29/13

Start Qty: 2.00

\*2\*

Cust Item ID:

Required Date: 8/13/13

Req'd Qty: 2.00

\*2\*

Customer:

Reference:

Approvals:

Process Plan: *[Signature]*

Date:

Tooling:

Date:

Run

Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D412-761-111

B

100

0.00

\*100\*

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels as per PPP D412-761-111 chg 001

105

0.00

\*105\*

Purchasing

Memo

0.00

Purchasing

ISSUE P/O: *80726*  
POSSIBLE SUPPLIER: EAGLE  
C OF C REQUIRED

*13-07-29*

110

Receive & Inspect for Damage & Mat'l Certs

0.00

\*110\*

Packaging

Memo

0.00

Packaging

*CL 13109105 (2)*





**Work Order ID 105235****\*105235\***

Page 2

July-29-13 2:19:42 PM

Item ID: D412-761-111

Accept

**\*N9000040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Wiring Harness Required 412

Start Date: 7/29/13 Start Qty: 2.00

**\*2\***

Cust Item ID:

Required Date: 8/13/13 Req'd Qty: 2.00

**\*2\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC5- Inspect part completeness to step on W/O	0.00							
<b>*120*</b>									
QC	Memo	0.00							
Quality Control									
130		0.00							
<b>*130*</b>									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-761-111 Location: _____ PPP Rev: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
<b>*140*</b>									
QC	Memo	0.00							
Quality Control									

13/9/15 JJ

CR 13/09/05



# Picklist Print

July-29-13 2:19:42 PM

Page 1

Work Order ID: 105235

Parent Item: D412-761-111

Start Date: 7/29/13

Required Date: 8/13/13

Parent Item Name: Wiring Harness Required 412

Start Qty: 2.00

Required Qty: 2.00

Comments: UIPP REV:A NEW ISSUE 13-01-02 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D412-761-111P Wiring Harness		Purchased	No				Each	0.0000		2		08/13/13	



LIST OF MATERIALS				
ITEM	QTY	PART NUMBER	DESCRIPTION	SUPPLIER
1	1	MS3121F10-6P	CONNECTOR, RECEPTACLE (J27)	
2	AR (30)	M39029/31-240	CONTACTS, PINS	
3	1	MS3126E10-6P	CONNECTOR, PLUG (P27A)	
4	AR (30)	M39029/32-259	CONTACTS, SOCKET	
5	1	MS3121F12-10P	CONNECTOR, RECEPTACLE (J28)	
6	1	MS3126E12-10S	CONNECTOR, PLUG (P28A)	
7	1	MS3121F12-10PW	CONNECTOR, RECEPTACLE (J238)	
8	1	MS3126E12-10SW	CONNECTOR, PLUG (P238A)	
9	1	LED-40-17-HK-35402	ANNUNCIATOR (MASTER CAUTION)	VIVISUN
10	1	LED-40-17-HK-E0SHM	ANNUNCIATOR (ENGINE FIRE 1)	VIVISUN
11	1	LED-40-17-HK-E0SHN	ANNUNCIATOR (ENGINE FIRE 2)	VIVISUN
12	3	1B-200	QUIK-CONNECTOR, PLUG	VIVISUN
13	1	MS3474W20-41P	CONNECTOR, RECEPTACLE (J1007)	
14	AR (35)	M39029/4-110	CONTACTS, PINS	
15	1	MS3476W20-41S	CONNECTOR, PLUG (P1007)	
16	AR (35)	M39029/5-115	CONTACTS, SOCKETS	
17	2	M85049/52S-20W	BACKSHELL	
18	AR	MS3121F8-33P	CONNECTOR, RECEPTACLE (J165)	
19	AR	MS3126E8-33S	CONNECTOR, PLUG (J165A)	
20	AR	MS3121F8-33PW	CONNECTOR, RECEPTACLE (J166)	
21	AR	MS3126E8-33SW	CONNECTOR, PLUG (J166A)	
22	1	D3705-11	INSTRUMENT FACE PLATE	DART AEROSPACE
23	1	1B-258	PANEL PLUG, BLACK	VIVISUN

\_\_\_\_\_ NEW WIRE / UNIT  
 - - - - - EXISTING WIRE / UNIT

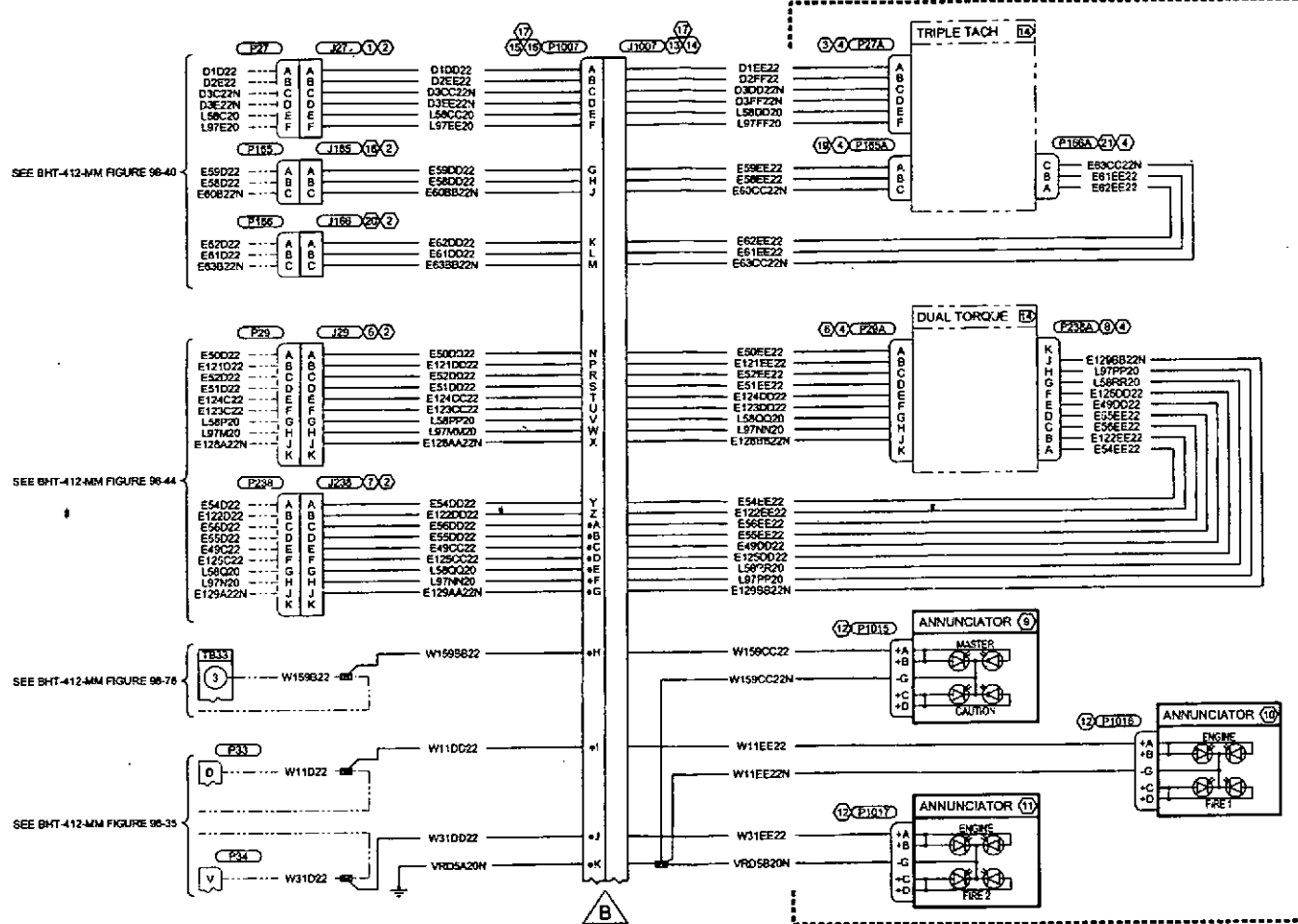
#### NOTES:

- ALL NEW UNSHIELDED WIRE USE M22759/41-XX-9 TYPE WIRE UNLESS OTHERWISE SPECIFIED.
- ALL NEW TWISTED SHIELDED CABLE USE M27500-XX-SM/T23 TYPE CABLE UNLESS OTHERWISE SPECIFIED.
- ALL WIRES 22 AWG UNLESS OTHERWISE SPECIFIED.
- IDENTIFY/CODE ALL WIRES AND CABLES IN ACCORDANCE WITH BHT-ELEC-SPM CHAPTER 3.
- KEEP ALL JUMPERS, SHIELD GND'S AND LOGIC STRAP WIRES AS SHORT AS POSSIBLE.
- KEEP ALL POWER AND CHASSIS GROUND WIRES AS SHORT AS POSSIBLE.
- ALL SPLICES MUST CONFORM TO MIL-S-81824, OR EQUIVALENT AND BE INSTALLED IN ACCORDANCE WITH BHT-ELEC-SPM CHAPTER 4.
- ALL TERMINALS TO BE INSTALLED IN ACCORDANCE WITH BHT-ELEC-SPM CHAPTER 4.
- ALL ELECTRICAL GROUNDING AND BONDING TO BE CARRIED OUT PER BHT-ELEC-SPM CHAPTER 8.
- PROVIDE SEPARATE GROUND STUD LOCATIONS FOR DC POWER GROUNDS, AC POWER GROUNDS, CHASSIS GROUNDS, SIGNAL GROUNDS AND SHIELD GROUNDS.
- ALL CONNECTORS TO BE INSTALLED IN ACCORDANCE WITH BHT-ELEC-SPM CHAPTER 5.
- ENSURE ALL UNUSED CONNECTOR CONTACTS ARE FILLED WITH SPARE PINS/sockets OR PLASTIC GROMMET SEALING PLUGS.
- ROUTE ALL WIRES AND CABLES WITH EXISTING WIRE AND CABLE RUNS IN ACCORDANCE WITH BHT-ELEC-SPM CHAPTER 6.
- REMOVE INDICATOR FROM CO-PILOTS INSTRUMENT PANEL AND INSTALL IN VERTICAL REFERENCE DOOR.
- A DOT (•) BEFORE A CONNECTOR CONTACT LETTER DENOTES LOWER CASE.

B	CHANGED PIN DESIGNATIONS FOR PJ1007	DJR	12.03.21
A	NEW ISSUE	KB	08.11.06
REV.	DESCRIPTION	BY	DATE
DESIGN	B	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	MT		
CHECKED	BS	DRAWING NO.	REV. B
MFG. APPR.	GR	D412-761-111	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		VRD - REQUIRED WIRING	NTS
DATE	12.03.21	COPYRIGHT © 2008 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY OTHER MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

*410105235*





LOC: VERTICAL REFERENCE DOOR

**ELECTRICAL WIRING DIAGRAM**  
**BELL MODEL 412 (S/N: 33001 THROUGH 33100)**  
**PART NUMBER: D412-761-111**

DESIGN	BS	<b>DART AEROSPACE LTD</b>	
DRAWN	MT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	BS	DRAWING NO.	REV. B
MFG. APPR.	GR	D412-761-111	SHEET 2 OF 2
APPROVED	<del>MT</del>	TITLE	SCALE
OE APPR.	<del>MT</del>	VRD - REQUIRED WIRING	NTS
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**Eagle Copters Maintenance Ltd**

823 McTavish Road, NE Calgary, Alberta T2E 7G9

TCCAAMO Approval No. 6-81

**Lot No: LT-13-012722.2**



**Bin No: 1526**

**RECEIVED: 08/28/2013 (**

**Part No: D412-761-111**

Description: Wiring Harness Required

<sup>412</sup>  
SERIAL #:

Condition: Inspected

Cure Date:

Manufacturer: Dart Aerospace (Manufacturer)

Model No: 412

	Cycles	Hours
Total Time:	_____	_____
TSO:	_____	_____
Time Remaining :	_____	_____

Details of work performed/reason for removal

**Receiving Inspection**

Additional work to be performed upon  
installation

August 28, 2013

LIC No./Stamp

Inspector

*[Signature]*



**Eagle Copters Maintenance Ltd**

823 McTavish Road, NE Calgary, Alberta T2E 7G9

TCCAAMO Approval No. 6-81

**Lot No: LT-13-012722.1**



**Bin No: 1526**

**RECEIVED: 08/28/2013 (**

**Part No: D412-761-111**

Description: Wiring Harness Required

<sup>412</sup>  
SERIAL #:

Condition: Inspected

Cure Date:

Manufacturer: Dart Aerospace (Manufacturer)

Model No: 412

	Cycles	Hours
Total Time:	_____	_____
TSO:	_____	_____
Time Remaining :	_____	_____

Details of work performed/reason for removal

**Receiving Inspection**

Additional work to be performed upon  
installation

August 28, 2013

LIC No./Stamp

Inspector

*[Signature]*





Work Order Number: 50504 Building Wire Harness

*This Work Report forms part of this aircraft's permanent technical records - DO NOT DESTROY.*

em: 1 Wiring Harness Required 412

Squawk: 1.1

Discrepancy:

Build Wire Harness IAW  
DWG: D412-761-111 Rev:  
B

Resolution:

Fabricated Harness P/N:  
D412-761-111 IAW STC  
SH09-4 Issue 2. Harness  
continuity tested  
servicable.

1.1 Work Done By: Eric Olberg

\*\*\*\*\* Original Maintenance Releases and Independent Control Inspection details are stored electronically at \*\*\*\*\*  
\*\*\*\*\* Eagle Copters Maintenance Ltd. in Calgary Alberta in the Corridor Software \*\*\*\*\*



Work Order Number: 50504

Building Wire Harness

*This Work Report forms part of this aircraft's permanent technical records - DO NOT DESTROY.***The maintenance described above has been performed in accordance with the applicable standards of airworthiness.****AMO 6-81** Signature: Ljubomir Jovicic on 8/27/2013Parts:

Part Number	Description	Serial Number	Lot Number	Condition	Qty
MS3121F10-6P	CONNECTOR		LT-13-011663	New	1
MS3121F10-6P	CONNECTOR		LT-13-002543	New	1
MS3121F12-10P	CONNECTOR		LT-13-011908	New	2
MS3126E12-10S	CONNECTOR		LT-13-011909	New	1
MS3126E12-10S	CONNECTOR		LT-13-011912	New	1
MS3126E12-10S	CONNECTOR		LT-13-001594.1	New	1
MS3121F12-10PW	CONNECTOR		LT-13-011910	New	1
MS3121F12-10PW	CONNECTOR		LT-13-001501	New	1
MS3126E12-10SW	CONNECTOR		LT-13-011667	New	1
MS3126E12-10SW	CONNECTOR		LT-13-001598	New	1
LED-40-17-HK-35402	INDICATOR ASSEMBLY - MASTER CAUTION		LT-12-008294	New	1
LED-40-17-HK-35402	INDICATOR ASSEMBLY - MASTER CAUTION		LT-13-012146	New	1
LED-40-17-HK-E05HM	LED ARI ENGINE, FIRE 1		LT-12-013085	New	2
LED-40-17-HK-E05HN	LED ARI ENGINE, FIRE 2		LT-12-013072	New	2
18-200	QUIK CONNECT		LT-13-007562	New	6
MS3474W20-41P	CONNECTOR		LT-13-003242	New	2
MS3476W20-41S	CONNECTOR		LT-13-011669	New	1
MS3476W20-41S	CONNECTOR		LT-13-001605	New	1
M85049/52S-20W	BACKSHELL		LT-13-011665	New	2
M85049/52S-20W	BACKSHELL		LT-13-001490	New	2
MS3121F8-33P	CONNECTOR		LT-13-001509.1	New	1
MS3121F8-33P	CONNECTOR		LT-13-003239	New	1
MS3126E8-33S	CONNECTOR		LT-13-000380	New	2
MS3121F8-33PW	CONNECTOR		LT-13-003241	New	1
MS3121F8-33PW	CONNECTOR		LT-13-001512	New	1
MS3126E8-33SW	CONNECTOR		LT-13-003408	New	2
D3705-11	MAIN PANEL		LT-13-001374.1	New	1
D3705-11	MAIN PANEL		LT-13-001373	New	1
18-258	PANEL PLUG BLACK		LT-12-013080	New	2
M22759/41-22-9	WIRE		LT-13-009038	New	757
M22759/41-20-9	WIRE		LT-12-012212	New	207
MS3126E10-6S	CONNECTOR		LT-13-006655	New	2
XPF-1/2	EXPANDABLE SLEEVING		LT-12-012590	New	27
XPF-1/4	EXPANDABLE SLEEVING		LT-13-010678	New	10
XPF-1/4	EXPANDABLE SLEEVING		LT-13-010678	New	12
XPF-3/8	EXPANDABLE SLEEVE		LT-13-005372	New	31

\*\*\*\*\* Original Maintenance Releases and Independent Control Inspection details are stored electronically at \*\*\*\*\*

\*\*\*\*\* Eagle Copters Maintenance Ltd. in Calgary Alberta in the Corridor Software \*\*\*\*\*



Work Order Number: 50504

Building Wire Harness

*This Work Report forms part of this aircraft's permanent technical records - DO NOT DESTROY.*

\* End of Report \*

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